O/W emulsions can be problematic because emulsions containing surfactants can require specific, limited manufacturing conditions and/or cause skin irritation upon application. Thus, this unique combination of ingredients in O/W emulsions addresses, among other things, such problems associated with previous surfactant-containing emulsions. As such, the present invention is novel and represents an advance in the art deserving of patent protection.

In view of this background, the rejections made in the outstanding Office Action will now be addressed in turn.

REJECTION UNDER 35 U.S.C. §112

The Office Action rejected claims 20-29, 34-38 and 43-46 under 35 U.S.C. §112, first paragraph, as containing subject matter not described in the specification. In view of the following comments, Applicants respectfully traverse this rejection and request reconsideration thereof.

The §112 rejection is based upon the assertion that the present specification "explicitly excludes surfactants from the invention composition." Admittedly, Applicants' preferred embodiment is a surfactant-free composition, and the specification makes this preference clear. That is not to say, however, that the specification fails to describe the compositions set forth in claims 20-29, 34-38 and 43-46. To the contrary, the specification clearly describes these compositions.

Page 1, lines 1-7 of the present specification read as follows:

The invention relates to a stable oil-in-water (O/W) emulsion comprising oil globules with an average size of less than 20 microns and containing at least 15% of oily phase and at least one copolymer of a fatty-chain carboxylic acid. The invention also relates to the process for preparing such an emulsion and to its use in cosmetics and/or dermatology.

This text does not require the invention compositions to be surfactant-free: it simply describes the invention compositions as O/W emulsions containing oil globules with an average size of less than 20 microns, at least 15% of oily phase and at least one copolymer of a fatty-chain carboxylic acid. Thus, O/W emulsions having the stated oily phase and the stated copolymer are part of the disclosed invention regardless of whether other materials, such as surfactants, are present (note in particular the use of the term "comprising" in these claims). Claims 20-29, 34-38 and 43-46 are directed to such compositions.

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In view of the above, Applicants respectfully submit that the §112 rejection is improper and should be withdrawn.

REJECTION UNDER 35 U.S.C. §103

The Office Action rejected claims 1-10, 15-29 and 34-46 under 35 U.S.C. §103 as obvious over JP 09255529 ("JP '529") in combination with U.S. patent 5,326,484 ("Nakashima"). In view of the following comments, Applicants respectfully request reconsideration and withdrawal of this rejection.

The claimed invention requires the fatty substances in the oily phase to consist essentially of oils. For purposes of the claimed invention, oils differ from solid fatty substances such as waxes. (See, page 6, lines 19-28). <u>JP '529</u> neither teaches nor suggests this limitation. In fact, <u>JP '529</u> teaches away from O/W emulsions in which the oily phase consists essentially of oils.

Specifically, <u>JP '529</u> states that the oily phase of its compositions must be solid. (See, "[Solution]" on p. 3/34). Moreover, <u>JP '529</u>'s comparative example 2 demonstrates that compositions containing an oily phase lacking solid fatty substances are unacceptable and,

thus, that substantial amounts of solid fatty substances must be present. (See, par. [0052] on p. 27/34).

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Thus, <u>IP '529</u> teaches away from the claimed oily phase. One skilled in the art, following <u>IP '529</u>, would not be motivated to produce an O/W emulsion in which the fatty substances in the oily phase consist essentially of oils. Rather, she would be motivated to produce an oily phase containing a substantial amount of solid fatty substances.

Nakashima fails to compensate for <u>JP '529</u>'s deficiencies: nothing in <u>Nakashima</u> would motivate one skilled in the art to modify <u>JP '529</u>, contrary to the teachings of <u>JP '529</u>, such that the fatty substances in the oily phase consist essentially of oils.

For this reason alone, the rejection under 35 U.S.C. §103 is improper and should be withdrawn.

Moreover, no motivation would exist to combine JP '529 and Nakashima with the expectation that a stable emulsion containing monodispersed globules would be obtained. JP '529 does not teach or suggest monodispersed globules. Also, as noted above, JP '529 teaches that a substantial amount of solid fatty substance must be present. There is no indication that JP '529's oil phases containing substantial amounts of solid fatty substances could be subjected to Nakashima's methods or that, if subjected to such methods, JP '529's O/W emulsions would emerge stable and monodispersed. This is particularly true in view of the fact that Nakashima is virtually silent regarding what oils can be used in his methods. The only teaching Nakashima provides in this regard is in his examples directed to O/W emulsions where the oil phase is a non-solid oil, kerosene. (See, examples I and II directed to O/W emulsions at col. 9, line 50 and col. 11, line 11, respectively).

Given such a minimal disclosure regarding acceptable oils for use in his methods,

Nakashima cannot be said to teach or suggest that his methods would have been obvious to

use for any oil phase with the expectation that acceptable, stable, monodispersed compositions would be obtained, particularly oil phases containing a substantial amount of solid fatty substances.

In view of the above, Applicants respectfully submit that the §103 rejection based upon <u>JP '529</u> and <u>Nakashima</u> is improper and should be withdrawn.

Applicants believe that the present application is in condition for allowance. Prompt and favorable consideration is earnestly solicited.

Respectfully submitted,

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- 1. (Thrice Amended) An emulsion comprising an oily phase dispersed in an aqueous phase, characterized in that the globules of the oily phase have an average size of less than 20 microns and are monodispersed, in that the oily phase constitutes at least 15% by weight relative to the total weight of the emulsion, in that the fatty substances in the oily phase consist essentially of oils and in that the aqueous phase contains at least one copolymer consisting of a major fraction of monoolefinically unsaturated C₃-C₆ carboxylic acid monomer or its anhydride and a minor fraction of acrylic acid fatty-chain ester monomer, and in that it is free of surfactant.
- 20. (Twice Amended) An emulsion comprising an oily phase dispersed in an aqueous phase, characterized in that the globules of the oily phase have an average size of less than 20 microns and are monodispersed, in that the oily phase constitutes at least 15% by weight relative to the total weight of the emulsion, in that the fatty substances in the oily phase consist essentially of oils and in that the aqueous phase contains at least one copolymer consisting of a major fraction of monoolefinically unsaturated C₃-C₆ carboxylic acid monomer or its anhydride and a minor fraction of acrylic acid fatty-chain ester monomer.